UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 May 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 13-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,13-21 and 23* is/are rejected.

7)☒ Claim(s) *22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 10-12 were cancelled.

2.   Claims 21-23 were added.

3.   Claims 1-9 and 13-23 were examined.

Section I: Final Rejection

Specification Objection

4.   The specification is objected to under 37 CFR 1.75(d)(1) as not using the same

words and phrases as are in the claims. In particular, claims 11 and 21 uses the phrase

"mobile end device" was not disclosed within the original disclosure.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-8 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated

by Welch (U.S. Patent 5,230,061; hereafter Welch). Welch teaches a method based

upon the Boolean form by a programmable data structure (abstract)

Claim 1. Method for displaying data ("display device", column 7, line 14) of a
machine control system (column 7, lines 7-9) comprising: receiving status data
(column 8, lines 6-13, table 64) for at least one element ("circuit element" as defined
within Welch as a computer processor logic, column 1, lines 42-45) of the system,
which represent at least one physical state variable (column 8, line 36); representing
the status data (table 64) which have been received for the element ("circuit
element" as defined within Welch, as a computer processor logic, column 1, lines
42-45); representing a control circuit diagram (figure 3 with column 7, lines 13-15),
which displays, (display device, 48) at least for the element ("circuit element" as
defined by Welch), an electrical connection (example of connected electronic
modules, figure 1 with column 6, lines 15-22) of the element (as defined by Welch)
in the system; where the representation of the status data (column 8, lines 6-13)
which have been received for the element ("circuit element" as defined within Welch,
as a computer processor logic, column 1, lines 42-45) to other individual elements
occurs in the represented circuit diagram (figure 3 with column 7, lines 13-15).

Claim 2. Method according to Claim 1, where the representation of the circuit diagram
(figure 3 with column 7, lines 13-15) occurs using a characterization (defined in the
disclosure as "a corresponding element ID is indicated as characterization," or code,
column 14, lines 53-55), which has been stored for the element ("circuit element" of
Welch), and associated connection data, which represent the electrical connection
(example of connected electronic modules, figure 1 with column 6, lines 15-22) of the

element ("circuit element" of Welch) in the system.

Claim 3. Method according to Claim 2, where the characterization (defined in the disclosure as "a corresponding element ID is indicated as characterization," or code, column 14, lines 53-55) allows the association of the element ("circuit element" of Welch) with its status data (contained in table 64).

Claim 4. Method according to Claim 1, where the status data (in table 64) are displayed one of at or on the represented element ("circuit element" of Welch) in the wiring circuit diagram (figure 3 with column 7, lines 13-15).

Claim 5. Method according to Claim 1, where the step of the receiving the status data (table 64) also comprises an identification of elements ("circuit element" of Welch), which are to be represented in the circuit diagram (figure 3 with column 7, lines 13-15), where the representation of the status data (table 64) for the identified elements ("circuit element" of Welch) occurs.

Claim 6. Method according to Claim 1. where, in response to user input, which establishes a preset value (column 10, table 1, lines of code est. rules or values)for the represented status data, (table 64) the preset value (column 10, table 1, lines of code est. rules or values) is set as a value for the corresponding state variable (column 8, line 36) in the machine control system.

Claim 7. Method according to Claim 1, where corresponding target values are displayed with the status data (table 64) for the element ("circuit element" of Welch).

Claim 8. Method according to Claim 1, where corresponding limit values are displayed with the status data (table 64) for the element ("circuit element" as defined by Welch, column 1, lines 42-45).

Claim 13. Method according to Claim 2, where the step of receiving the status data (table 64) also comprises an identification of elements ("circuit element" of Welch), which are to be represented in the circuit diagram (figure 3 with column 7, lines 13-15), where the representation of the status data (table 64) for the identified elements ("circuit element" of Welch) occurs.

Claim 14. Method according to Claim 2, where, in response user input which establishes a preset value (column 10, table 1, lines of code est. rules or values) for the represented status data, the preset value (column 10, table 1, lines of code est. rules or values) is set as a value for a corresponding state variable (column 8, line 36) in the machine control system (column 7, lines 7-9).

Claim 15. Method according to Claim 5, where, in response to the user input which establishes a preset value (column 10, table 1, lines of code est. rules or values) for the represented status date, the preset value (column 10, table 1, lines of code est. rules or values) is set as a value for the corresponding state variable (column 3, line 18 and

column 5, lines 34-36) in the machine control system (column 7, lines 7-9).

Claim 16. Method according to Claim 2, where corresponding target values are
displayed with the status data (table 64) for the element ("circuit element" of Welch).

Claim 17. Method according to Claim 2, where corresponding limit values are
displayed with the status data (table 64) for the element ("circuit element" of Welch).

Claim 18. Method according to Claim 7, where corresponding limit values are
displayed with the status data (table 64) for the element ("circuit element" of Welch).

Claim 19. Method according to Claim 7, where previous status data (table 64) for the
element ("circuit element" of Welch) are represented which indicate at least one
previous value ("old to new value", column 16, lines 55-56) for the state variable
(column 8, line 36).

Claim 20. Method according to Claim 8, where previous status data (table 64) for the
element ("circuit element" of Welch) are represented which indicate at least one
previous value ("old to new value", column 16, lines 55-56) for the state variable
(column 8, line 36).

7.   Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by

Dupree et al. (US Patent 5,949,994; hereafter Dupree). Dupree teaches a dedicated

context cycling multiprocessor (abstract).

Claim 21. Device for displaying data of a machine control (column 21, lines 35-

40) system, said device comprising: receiving means for receiving status data

(figure 5B, "data memory contents")for at least one element of the system, which

represent at least one physical state variable (column 29, lines 64-67);

representing means for representing the status data (figure 5B, "data memory

contents") which have been received for the element and for representing a circuit

diagram (figure 3A), which displays, at least for the element the electrical

connection (examples of OR gate connection, figure 15D) of the element to other

individual elements in the system; where the representation of the status data

(figure 5B, "data memory contents") which have been received for the element

occurs in the represented circuit diagram (figure 3A).

Claim 22. A system comprising a device in combination with a machine control (column

21, lines 35-40)system, wherein said device is adapted to display data of the machine

control. system, said device comprising: receiving means for receiving status data

(figure 5B, "data memory contents")for at least one element of the system, which

represent at least one physical state variable (column 29, lines 64-67); representing

means for representing the status data (figure 5B, "data memory contents")which have

been received for the element and for representing a circuit diagram (figure 3A), which

displays, at least for the element, the electrical connection (examples of OR gate

connection, figure 15D)of the element to other individual elements in the system; where

the representation of the status data (figure 5B, "data memory contents")which have

been received for the element occurs in the represented circuit diagram (figure 3A).

Section II: Response to Arguments

Specification Objection

8.   Applicants are thanked for responding to this issue. Paragraph 0027 is listed

below:

> *[0027]   For the status data, which are represented in the circuit diagram, the operator is*
> *additionally given the possibility to change the value of these state variables in the*
> *machine control system. The operator enters, via the user input unit 23, a corresponding*
> *preset value for the state variable. The preset value is transferred to the machine control*
> *system as a value to be set and it is also set accordingly. The preset value can thus be*
> *forced as the value for the state variable of an element. The operator then observes the*
> *reaction of the machine control system to the changed state.*

Applicants allege the "mobile end device" limitation is listed in the paragraph above that

is unlisted. Objection, as set forth above, is maintained.

Claim Objections

9.   Applicants are thanked for responding to this issue. Objections are withdrawn.

102(b) Rejection

10. Applicants are thanked for responding to this issue; however, the arguments presented are non-persuasive in view of the prior art. The circuit diagram is clearly denoted by Welch figure 2, element 34. Furthermore, applicants' response (page, 9 of 10, 2nd paragraph, lines 5-7) states, "...which displays an electrical connection of an element to other individual elements in a machine control function...' which is clearly stated by Welch (column 6, lines 66-68, "...wherein machine input control signals **30** from various sensing devices or the like are directed...). Rejection, as set forth above, stands.

Conclusion

11. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-
3715, Monday-Friday (7:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact
examiner's supervisor Mr. Anthony Knight 571-272-3687. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for published
applications may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through Private PAIR only. For
more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to
questions regarding access to the Private PAIR system, contact the Electronic Business
Center (EBC) (toll-free (866-217-9197)).

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